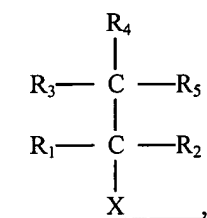


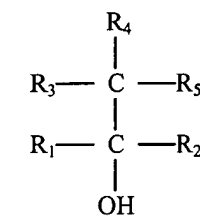
AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An improved process for the preparation of 2-aryl propionic acids, the said process comprising steps of:

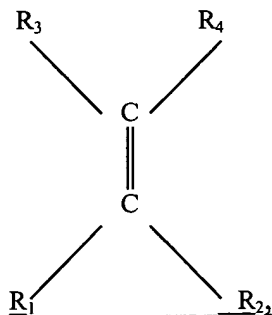
(i) reacting an aryl compound selected from an arylalkyl halide having general formula [I,]



aryl alcohol having general formula [II]



or aryl substituted olefins having general formula [III,]

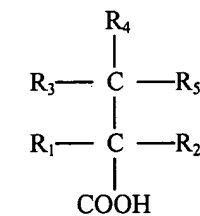


as shown in the accompanying drawings, wherein, R₁ is aryl, substituted aryl, naphthyl or substituted naphthyl groups, R₂, R₃, R₄ and R₅ are independently hydrogen, alkyl, aryl, arylalkyl or cycloaliphatic groups with or without substituents and X is a halogen atom selected from chlorine, bromine or iodine

with a halide promoter selected from the group consisting of halide salts of
alkali metals and quaternary ammonium or phosphonium halides, an organic
acid selected from the group sulphonic acids consisting of para toluene
sulphonic acid, methane sulphonic acid, or trifluormethane sulphonic acid,
water and a palladium catalyst in an organic solvent [~~selected from ketones or~~
~~cyclic ethers~~] of the group of ketones consisting of acetone, methyl ethyl ketone,
methyl isobutyl ketone, diethyl ketone, methyl n-propyl ketone, acetophenone or
cyclic ethers such as tetrahydrofuran and dioxan in carbon monoxide atmosphere
under homogeneous conditions, at a temperature ranging between 30 to 130°C,
for a period ranging between 0.3 to 4 hrs, at pressures ranging between 50 to
1500 psig,

- (ii) cooling the reaction mixture to an ambient temperature,
(iii) flushing the reaction vessel with an inert gas,
(iv) removing the solvent [~~by conventional methods~~], and

separating the catalyst and isolating 2-aryl propionic acid having a formula
[(IV)] as ~~[shown in the accompanying drawings,]~~ follows:



wherein, R₁ is aryl, substituted aryl, naphthyl or substituted naphthyl groups,
R₂, R₃, R₄ and R₅ are independently represented by hydrogen, alkyl, aryl,
arylalkyl, cycloaliphatic groups with or without substituents.

1 2. (Previously Amended) A process as claimed in claim 1, wherein catalyst is selected
2 from the group of palladium(O) or palladium(II) compound comprising palladium chloride,
3 palladium bromide, palladium iodide, bis(triparatolyphoshino) dichloro palladium(II),
4 bis(triethylphosphino) dichloro palladium(II), bis(triisopropylphosphino) dichloro
5 palladium(II), dibenzylideneacetato- palladium(O), cyclooctadiene dichloro palladium(II),
6 bisbenzonitriledi-chloro palladium(II), acetylacetonato palladium(II) and bisacetonitrile
7 dichloro palladium(II).

1 3. (Cancelled)

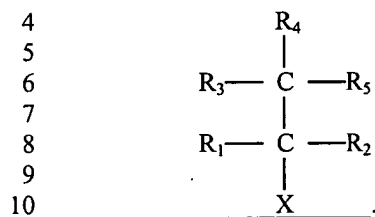
1 4. (Cancelled)

1 5. (Cancelled)

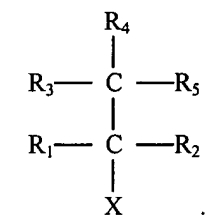
1 6. (Cancelled)

1 7. (Cancelled)

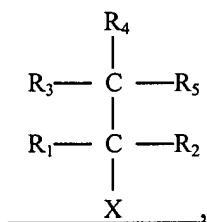
1 8. (Currently Amended) A process as claimed in claim 1 wherein the concentration of
2 the catalyst is one mole of catalyst for every 50 to 50000 moles of the compound having the
3 formula [H]



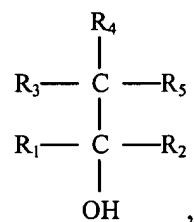
9. (Currently Amended) A process as claimed in claim 8 wherein the concentration of the catalyst is one mole of catalyst for every 100 to 6000 moles of the compound having formula [H]



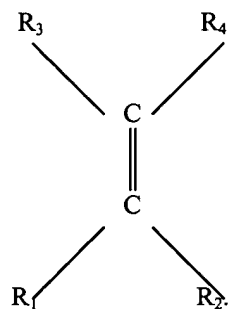
10. (Currently Amended) A process as claimed in claim 1 wherein the concentration of the catalyst is one mole of catalyst for every 150 to 2000 moles of compounds having formula [I,]



formula [H]



or formula [HH]



1 11. (Original) A process as claimed in claim 1 wherein the amount of halide promoter
2 per gram mole of the catalyst is in the range of 5 to 500 moles.

1 12. (Original) A process as claimed in claim 11 wherein the amount of halide
2 promoter per gram mole of the catalyst is in the range of 10 to 300 moles.

1 13. (Original) A process as claimed in claim 12 wherein the amount of halide
2 promoter per gram mole of the catalyst is in the range of 25 to 150 moles.

1 14. (Original) A process as claimed in claim 1 wherein the amount of organic acid per
2 gram mole of catalyst may be in the range of 5 to 500 moles.

1 15. (Original) A process as claimed in claim 14 wherein the amount of organic acid
2 per gram mole of catalyst may be in the range of 10 to 300 moles.

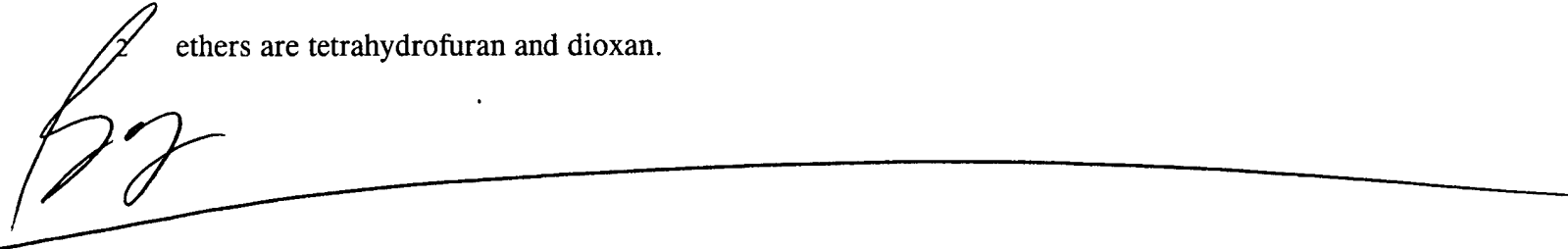
1 16. (Original) A process as claimed in claim 15 wherein the amount of organic acid
2 per gram mole of catalyst may be in the range of 25 to 150 moles.

1 17. (Currently Amended) A process as claimed in ~~{claims}~~ claim 1 wherein the
2 amount of water is in the range of 1 to 6% (v/v) of the total reaction mixture.

1 18. (Currently Amended) A process as claimed in ~~{claims}~~ claim 17 wherein the
2 amount of water is in the range of 3 to 5% (v/v) of the total reaction mixture.

1 19. (Currently Amended) A process as claimed in claim 1 wherein the reaction is
2 carried out even at low pressures of carbon monoxide ~~{upto}~~ up to 50 psig.

1 20. (Currently Amended) A process as claimed in claim ~~[7]~~ 1 wherein the cyclic
2 ethers are tetrahydrofuran and dioxan.

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